BEFORE

THE PUBLIC SERVICE COMMISSION OF

SOUTH CAROLINA

DOCKET NO. 2019-290-WS

IN RE:	Application of Blue Granite Water Company for Approval to Adjust Its Rate Schedules and Increase Rates	)))	PARTIAL PROPOSED ORDER[1]

I. INTRODUCTION

This matter is before the Public Service Commission of South Carolina ("Commission") on the Application of Blue Granite Water Company ("BGWC" or "Company"). BGWC seeks approval of a new schedule of rates and charges for water and sewer services, as well as modifications to certain terms and conditions for its customers in South Carolina. BGWC filed its Application on October 2, 2019, pursuant to S.C. Code Ann. §58-5-240 and S.C. Code Ann. Regs. 103-712(4)(A) and 103-512(4)(A).

BGWC is a public utility subject to the Commission's jurisdiction. It provides water and wastewater utility service to approximately 16,500 water customers and 11,800 sewer customers, located in 16 counties (Lexington, Richland, Sumter, Aiken, Saluda, Orangeburg, Beaufort, Georgetown, Abbeville, Union, Anderson, York, Cherokee, Greenville, Greenwood, and Williamsburg) in South Carolina. Tr. p. 354.7 (Denton Dir., p. 7).

In its Application, BGWC requested an increase in revenues for combined water and sewer operations of $11,731,803, which is an increase of $3,636,850 for Service Territory 1 of and an increase of $1,939,107 for Service Territory 2. These represent increases of 53.5% and 34.9%,

[1] The South Carolina Department of Consumer Affairs presented testimony on specific issues in this matter; therefore, this proposed order only addresses those issues.

respectively. BGWC requested a sewer revenue increase of $6,155,846 (55.7% increase). Tr. p. 645 (Morgan Dir., p. 5). The requested revenue increase utilized a return on equity ("ROE") of 10.2-10.7% based on the rate of return on rate base methodology and a historical test year beginning July 1, 2018 and ending June 30, 2019.[2] Tr. p. 547.4 (D'Ascendis Dir., p. 4).

Under the Company's proposal, a typical Service Territory 1 residential customer using 4,716 gallons/month would see an increase of approximately $21.86 per month. Additionally, a Service Territory 1 Distribution Only residential customer using 4,610 gallons/month would see an increase of approximately $26.39 per month. A typical Service Territory 2 residential customer using 3,880 gallons/month would see an increase of approximately $23.91. Additionally, a Service Territory 2 Distribution Only residential customer using 3,640 gallons/month would see an increase of approximately $25.06 per month. A typical Consolidated Sewer residential customer would see an increase in their flat rate of approximately $36.22 per month. Tr. p.. 354.22 (Denton Dir., p. 22). In addition to the proposed rate increase, the Company has made several requests for recovery of costs and other initiatives that may have a direct impact on the determination of the revenue requirement in this proceeding.

BGWC's last rate case before this Commission was in Docket No. 2017-292-WS, when the company was known as Carolina Water Service ("CWS"). In that case, the Commission order provided that CWS, now BGWC, would receive a combined revenue increase of $2,936,395 based on a $55,524,956 rate base, an operating margin of 13.23%, an ROE of 10.5%, and a return on rate base of 8.62%. (Order 2018-345(A), p. 33).

II. PROCEDURAL BACKGROUND AND SUMMARY OF TESTIMONY

[2] BGWC witness D'Ascendis revised his recommended ROE to 9.75-10.25% in his Rebuttal Testimony.

Petitions to Intervene have been filed by the following: Ms. Laura Valtorta, Esquire on behalf of the Forty Love Point Homeowners Association ("Forty Love HOA"); Mr. James Knowlton, as an individual ratepayer; Mr. Stefan Dover, as an individual ratepayer; Mr. Jahue Moore, Esquire on behalf of the Town of Irmo; Mr. Michael Kendree, Esquire representing York County; and Mr. John Pringle, Jr., Esquire on behalf of the Building Industry Association of South Carolina.[3]

Pursuant to S.C. Code Ann. § 37-6-604 (2018), Ms. Carri Grube Lybarker, Esquire and Ms. Laura Becky Dover, Esquire intervened on behalf of the South Carolina Department of Consumer Affairs ("SCDCA"). Pursuant to S.C. Code Ann. § 58-4-10(B) (Supp. 2015), the South Carolina Office of Regulatory Staff ("ORS") is a party of record in this proceeding.

The Company filed with the Commission the Direct Testimony and exhibits of Donald Denton, the Company President; J. Bryce Mendenhall, Vice President of Operations; Dante DeStefano, Director of Financial Planning and Analysis for BGWC; Shawn Elicegui, Executive Vice President of Risk Management for the Corix Group of Companies ("Corix"); John Spanos of Gannett Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming"); and Dylan D'Ascendis, Director at ScottMadden, Inc. The Company filed Rebuttal Testimony from its witnesses Spanos, Mendenhall, DeStefano, Denton, and D'Ascendis

ORS filed the Direct Testimony and Exhibits of its witnesses Anthony D. Briseno, Senior Auditor with ORS; Anthony M. Sandonato, Senior Regulatory Manager with ORS; Brandon S. Bickley, Regulatory Analyst with ORS; Charles E. Jackson, Auditor with ORS; Daniel F. Sullivan, Deputy Director of the ORS Audit Department; Dr. Kyle D. Maurer, Sr., Deputy Director of the ORS Water Operations Department; David J. Garrett, managing member of Resolve Utility

[3] The Building Industry Association of South Carolina did not make any filings or present any testimony after its Petition to Intervene was granted.

Consulting, PLLC; and David C. Parcell, Principal and Senior Economist of Technical Associates, Inc. ORS also filed Surrebuttal Testimony from ORS witnesses Bickley, Briseno, Garrett, Jackson, Maurer, Parcell, and Sandonato.

SCDCA filed the Direct and Surrebuttal Testimony and Exhibits of its witnesses Jerome Mierzwa, principal and President of Exeter Associates, Inc. ("Exeter"); Lafayette K. Morgan, Jr., Public Utilities Consultant with Exeter; and Aaron Rothschild, President of Rothschild Financial Consulting. Clean Corrected Direct Testimony and Exhibits of Lafayette K. Morgan and Aaron L. Rothschild were also filed.

Intervenor York County filed Direct Testimony of Eric Rekitt, York County Public Works Director. Intervenor Forty Love HOA filed Direct Testimony of its witnesses Barbara "Bobbie" King and Jay Dixon. Pro se witnesses James Knowlton and Stefan Dover each filed Direct Testimony. The Town of Irmo did not file any witness testimony.

Public night hearings were held in Lexington, Union, Anderson, Greenville, York, and Richland Counties. A total of more than 160 BGWC customers provided testimony at the night hearings. The public witnesses voiced objections to the amount of the requested increase in rates and raised general and specific concerns about the quality of water and customer service provided to them by BGWC.

The public merits hearing was held at the Commission's Hearing room, beginning February 26, 2020, at 10:00 am to receive testimony from the parties and any public witnesses. The Honorable Comer H. "Randy" Randall, Chairman of the Commission, presided.

BGWC was represented by Frank R. Ellerbe III, Esquire and Samuel J. Wellborn, Esquire. ORS was represented by Andrew Bateman, Esquire, Chris Huber, Esquire, and Alex Knowles, Esquire. SCDCA was represented by Carri Lybarker, Esquire, Laura Becky Dover, Esquire, Roger

P. Hall, Esquire, and Richard Whitt, Esquire. Intervenor Forty Love HOA was represented by Laura Valtorta, Esquire. Intervenor York County was represented by Michael Kendree, Esquire. Intervenors James Knowlton and Stefan Dover represented themselves.

All witnesses were sworn in and had their pre-filed Direct and Rebuttal/Surrebuttal Testimonies, as applicable, accepted into the record. All witnesses presented summaries of their testimonies and were made available for cross-examination by the other parties to this proceeding.[4]

Company witness Denton provided testimony regarding several specific topics, including the Company's reorganization and performance metrics. Mr. Mendenhall testified regarding customer service, operating personnel, facilities, maintenance, and capital projects. Mr. Elicegui discussed the relationship of Corix to BGWC and the nature of certain corporate support shared services provided by Corix. Mr. Spanos testified about the results of his review and analyses of the plant in service of BGWC, including his deprecation studies. Mr. D'Ascendis, provided his opinion on the capital structure and corresponding cost rates he felt BGWC should be afforded the opportunity to earn on its jurisdictional rate base.

ORS witnesses Sandonato testified about the proposed rate increases and structure modifications. Mr. Bickley testified about certain programs and funds the Company proposed to create. Dr. Maurer, Mr. Jackson, Mr. Sullivan, and Mr. Briseno testified about proposed adjustments to BGWC's application and test year findings. Mr. Garrett analyzed the Company's depreciation rates. Mr. Parcell, provided testimony recommending an appropriate range for return on equity for BGWC.

SCDCA witness Mierzwa testified regarding the Company's cost allocation and design. Mr. Morgan addressed the reasonableness of the water and sewer service revenue increases

---

[4] The Town of Irmo did not present any witnesses but did cross-examine other party witnesses.

requested by BGWC and discussed his adjustments to the Company's expenses. Mr. Rothschild testified regarding the appropriate cost of equity, capital structure, and overall cost of capital for BGWC.

Forty Love HOA Witnesses King and Radke testified to their concerns about the rate increases and pass-through mechanism proposed by the Company. Mr. Knowlton presented his testimony opposing the amount of the Company's rate increases and his dissatisfaction with the Company's quality of services. Mr. Dover presented his testimony regarding the impacts the rate increases would have on him and his neighbors, including potential impacts to property values, in the Fox Woods Subdivision in Fort Mill, South Carolina. Mr. Rekitt testified regarding the impact of rate increases and purchased water and wastewater costs on York County residents.

III. REVIEW OF THE EVIDENCE AND EVIDENTIARY CONCLUSIONS

A. Standards and Required Findings

The Commission has wide latitude to determine an appropriate rate-setting methodology. *Heater of Seabrook, Inc. v. Public Service Comm'n*, 324 S.C. 56, 478 S.E.2d 826 (1996). BGWC requested the Commission determine the reasonableness of its proposed rates in accordance with the rate base methodology. BGWC presented testimony recommending a capital structure, overall rate of return, and range of return on equity. ORS and DCA also provided testimony adopting the Company's capital structure, making alternate recommendations as to the appropriate rate of return and return on equity. There was no evidence presented by any parties supporting the use of any other ratemaking methodology. Accordingly, the Commission will utilize the rate base methodology in setting the Company's rates in this case.

Pursuant to S.C. Code Ann. §58-5-210, the Commission must fix just and reasonable rates. The Company is subject to the Commission's jurisdiction pursuant to S.C. Code Ann. §§ 58-3-140(A) and 58-5-210 (2015). After evaluating the testimonies, opinions, and evidence presented by the parties, the Commission reaches the legal and factual conclusions discussed below.

B. Test Year

The Commission requires the use of a historic twelve-month test period under S.C. Code Ann. Regs. 103-823.A(3) (2012). The test year is established as the basis for measuring and calculating a utility's expenses, revenues, and return on rate base. *Id.* The Commission considers proposed rate increases based upon occurrences within the test year, but will also consider adjustments for any known and measurable changes outside of the test year.

In its Application, BGWC utilized the twelve months beginning July 1, 2018 and ending June 30, 2019. ORS and DCA used the same historical test year. No other party disputed the proposed test year. Therefore, the Commission concludes that the test year beginning July 1, 2018 and ending June 30, 2019 is appropriate.

C. Proposed Rate Increases

The current base facility/monthly customer charge for water service in BGWC Service Territory 1 is $14.38 and in Service Territory 2 it is $28.59. Tr. p. 631. Under the Company's proposal, these charges would increase to approximately $22.00 in Service Territory 1 and $38.58 in Service Territory 2. Tr. p. 633.6 (Mierzwa Dir., p. 6). The Company did not perform a Class Cost of Service Study ("CCOSS") in order to justify these proposed increases.

1. Base Facility/Monthly Customer Charges

SCDCA witness Mierzwa provided an analysis of cost-based base facility charges for BGWC using the base-extra capacity method described in the American Water Works Association's ("AWWA") *Principles of Water Rates, Fees and Charges* ("AWWA M1 Manual"). His initial analysis indicated an appropriate cost-based base facility charge for residential water service customers was approximately $10.00 per month in each Service Territory. Tr. p. 633.9 (Mierzwa Dir., p. 9). Using information and data supplied by the Company, Mr. Mierzwa presented the following table in his direct testimony which summarizes the Company's present and proposed rates:

Table 1.
Blue Granite Water Company
Summary of Present and Proposed Residential Charges for Water Service

SERVICE TERRITORY 1	Present	Proposed
Water Supply Customers Only		
Base Facility Charge	$14.38	$22.09
Commodity Charge (1,000 gallons)	$5.59	$8.59
Water Distribution Customers Only		
Base Facility Charge	$14.38	$22.00
Distribution Charge	$7.55	$4.75
Purchased Water Charge	--	$6.85
SERVICE TERRITORY 2	**Present**	**Proposed**
Water Supply Customers Only		
Base Facility Charge	$28.59	$38.58
Commodity Charge (1,000 gallons)	$10.27	$13.86
Water Distribution Customers Only		
Base Facility Charge	$28.59	$38.58
Distribution Charge	$11.85	$4.91
Purchased Water Charge	--	$11.08

Tr. p. 633.6 (Mierzwa Dir., p. 6).

As indicated by the table, the Company's current and proposed base facility charges are higher than that calculated by Mierzwa using the base-extra capacity method. Witness Mierzwa testified that the proposed increases in the base facility/monthly customer charges were unreasonable and that any increase in revenue authorized by this Commission should be recovered through increases in the volumetric usage (commodity and distribution) charges. TR. p. 633.4 (Mierzwa Dir., p. 4).

Mr. Mierzwa noted that under the base-extra capacity method, investments and costs are first classified into four primary categories: base or average capacity, extra capacity, customer, and direct fire protection. Once investment and costs are classified into categories, they are allocated to customer classes. Base costs are allocated according to average water use. Extra capacity costs are allocated on the basis of the excess of peak demands over average demands. Customer costs are allocated on the basis of relative meter and service investment (or a proxy thereof) and in proportion to the number of customers or the number of bills. Using this method, base and extra capacity costs are recovered through volumetric usage charges and customer-related costs are recovered through base facility (monthly customer) charges. Tr. pp. 633.7- 633.9 (Mierzwa Dir., pp. 7-9).

BGWC believed Witness Mierzwa's analysis using the base-extra capacity method to determine an appropriate Base Facility Charges was incomplete, as it did not account for post-Test Year plant additions, updated depreciation rates, allocations of Cash Working Capital, and other pro-forma adjustments incorporated into BGWC's proposed revenue requirement. Tr. p. 764.39 (DeStefano Reb., p. 39). Mr. Mierzwa countered that the trial balances for each account did not include the Company's *pro-forma* adjustments because the Company did not present its *pro-forma* adjustments by account. Tr. p. 640.4 (Mierzwa Surr., p. 4).

To address BGWC's comments, Mr. Mierzwa subsequently modified his cost of service analysis to estimate the impact of incorporating the Company's proposed post-test year plant additions, cash working capital, and other *pro-forma* adjustments. His pro-forma adjusted consolidated base facility/monthly customer charge was $9.40, which is lower than the customer charge presented in his direct testimony (approximately $10.00), and significantly lower than the Company's current and proposed charges which range from $14.38 to $38.58. *Id.* (Hearing Exhibit 19, Revised Exhibit JDM-1).

2. <u>Class Cost of Service Study</u>

Mr. Mierzwa testified that the base-extra capacity cost of service methodology he used is the most common CCOSS utilized by water utilities.[5] Tr. 633.8 (Mierzwa Dir., p. 8). Mr. Mierzwa noted a sound revenue allocation and design includes utilizing CCOSS results as a guide. A CCOSS further provides stability and predictability of the rates, with a minimum of unexpected changes seriously adverse to ratepayers or the utility (i.e., gradualism).[6] Tr. p. 640.6 (Mierzwa Surr., p. 6).

Mr. Mierzwa recommended that the Company and Commission begin moving toward cost of service rates in this proceeding, not during the Company's next base rate proceeding. Mr. Mierzwa testified that failure to begin the movement toward cost of service rates in this proceeding could require more significant changes in rates in future proceedings. Such inaction would be inconsistent with the principle of gradualism in rate design. Tr. p. 640.6 (Mierzwa Surr., p. 6).

ORS recommends the Company conduct a CCOSS prior to its next rate case and, based on

---

[5] No party disputed this claim nor Mr. Mierzwa's application of the base-extra capacity method.
[6] Mr. Mierzwa cited the following: *Principles of Public Utility Rates*, Second Edition, James C. Bonbright, Albert L. Danielsen, David R .Kamerschen; Public Utility Reports, Inc., 1988, pages 383-384.

the results, the Company be required to increase parity across its customer classes. Tr. p. 1213.16 (Sandonato Dir. p. 16). ORS testified these studies are essential to determine the proper rate design as they will demonstrate which costs need to be recovered and from which customer classes. Tr. p. 1214.7 (Sandonato Surr., p. 7).

The Company indicated it was open to filing a CCOSS in its next rate case. Tr. p. 764.37 (DeStefano Reb., p. 37). The Company testified that a CCOSS would best delineate the cost drivers and provide the best roadmap to consolidating rates and setting appropriate base facility and volumetric charge levels for its customer groups. *Id.* BGWC also stated a comprehensive CCOSS would incorporate cost allocations between service territories and water and sewer on a more detailed level. As such, the Company believes it is premature to draw conclusions about the appropriate Base Facility Charges based on the data available in the current proceeding. The Company recommends a CCOSS be filed in the next rate case to adequately support further adjustments to rate structure and revenue requirement consolidation. Tr. pp. 764.39-764.40 (DeStefano Reb., pp.39-40). However, Company witness DeStefano also stated that if the Commission directs it to prepare a CCOSS before its next rate case, the Commission should authorize the deferral of the associated costs along with its other rate case filing and processing expenses. r. p. 764.37 (DeStefano Reb., p. 37).

3. Discussion of Base Rates and CCOSS

The Commission agrees with Mr. Mierzwa's assessment that it is appropriate to begin the movement towards cost-based rates in this proceeding. Therefore, we decline to increase the Company's base facility/monthly customer charges at this time. The Commission notes that although Mr. Mierzwa utilized the base-extra capacity method only to determine cost-based base facility/monthly customer charges, water customers are assessed two charges for service: a base facility/monthly customer charge and a volumetric usage charge. Movement toward a cost-based base facility/monthly customer charge would in turn lead to cost-based volumetric charges.

This Commission supports the adoption of cost-based rates and we agree with the Company, ORS, and SCDCA that a CCOSS provides the best roadmap for setting appropriate base and volumetric charges, incorporating cost allocations between service territories and water and sewer on a more detailed level, and supporting further adjustments to rate structure and revenue requirement consolidation. Therefore, the Company's current base facility/monthly customer charges will be maintained. We direct the Company to file a CCOSS in its next rate proceeding to support its proposed rate design.

D. Rate of Return on Rate Base

The Company requested rate base and rate of return treatment for its Application. No other party of record proposed an alternative method for determining just and reasonable rates.

The Commission has wide latitude in selecting a rate setting methodology. *Heater of Seabrook*, at 64. Even though S.C. Code § 58-5-240(H) requires the Commission to specify an operating margin in all water and sewer rate cases, the Commission is not precluded by that statute from employing the return on rate base approach to ratemaking. *Id*. Operating margin "is less appropriate for utilities that have large rate bases and need to earn a rate of return sufficient to obtain the necessary debt and equity capital that a large utility needs for sound operation." *Id*. at 65. In the Company's last rate case, the Commission employed the return on rate base methodology. The Commission finds the return on rate base methodology is appropriate.

The determination of return on rate base requires consideration of three components: (1) capital structure, (2) cost of debt, and (3) cost of equity (or "ROE. Tr. p. 541 (D'Ascendis Dir., pp.

10-11); 660 (Rothschild Dir., pp. 2-3); 1000 (Parcell Dir., pp. 3-4).

1. Capital Structure and Cost of Debt

Mr. D'Ascendis, Mr. Parcell, and Mr. Rothschild agreed that the capital structure and cost of debt of BGWC's parent company, CRU[7] should be employed: it is 47.09% long-term debt at an embedded debt cost rate of 5.73% and 52.91% common equity. Tr. p. 541 (D'Ascendis Dir., pp. 10-11); 660 (Rothschild Dir., pp. 2-3); and 1000 (Parcell Dir., pp. 3-4). No other party disagreed. This Commission finds the capital structure is supported by the uncontroverted testimony of the parties.

2. ROE

The ROE is a key figure used in calculating a utility's overall rate of return. *Porter v. PSC*, 333 S.C. 12 (1998). A utility is entitled to the opportunity to earn a fair rate of return. *Federal Power Commission v. Hope Natural Gas Co.*, 262 U.S. 679 (1944) and *Bluefield Water Works Improvement Co. v. Public Service Comm'n*, 262 U.S. 679 (1922).

The three ROE witnesses presented in this case, Mr. D'Ascendis, Mr. Parcell, and Mr. Rothschild, agreed that "ratemaking and the cost of capital are prospective in nature, i.e., forward looking." Tr. p. 546 (D'Ascendis Dir., p. 19); 683.10 (Rothschild Dir., p. 8); 1004.9 (Parcell Dir., p. 9).

Mr. D'Ascendis, Mr. Parcell, and Mr. Rothschild disagreed on the overall rate of return ("ROR") or cost of capital ("COC") this Commission should authorize. Tr. p. 541 (D'Ascendis Dir., p. 2); 661 (Rothschild Dir., p. 2); and 1000 (Parcell Dir., pp. 3-4). They also disagreed on the cost of equity ("COE") or return on equity ("ROE") this Commission should authorize, and each presented valuable testimony to aid the Commission in making a determination on this issue.

[7] CRU is a wholly-owned subsidiary of Corix Infrastructure, Inc. ("CII").

Mr. D'Ascendis' final recommended range of ROE was 9.75% to 10.25% Tr. p. 545 (D'Ascendis Reb., p. 3). Mr. Parcell recommended an overall ROR of 7.41%-7.99%, with a midpoint of 7.70%. Tr. p. 1000_(Parcell Dir., p. 3). Mr. Parcell recommended an ROE range of 8.9%-10.0%, with a midpoint of 9.45%. Tr. p. 1000 (Parcell Dir., p. 4).

a. Proxy Groups Overview

All three ROR witnesses arrived at their recommended rates and ranges of rates by applying common equity models including the Constant Growth Discounted Cash Flow ("DCF") and the Capital Asset Pricing Model ("CAPM") to proxy groups of publicly traded water utilities (each of these groups will be referred to as "Water Proxy Group"). Tr. p. 541 (D'Ascendis Dir., p. 2); 661 (Rothschild Dir., p. 5); and 1000 (Parcell Dir., pp. 3-4). In addition to DCF and CAPM, Mr. D'Ascendis also utilized Empirical Capital Asset Pricing Model ("ECAPM") and the Risk Premium Model ("RPM"). Tr. p. 541 (D'Ascendis Dir., p. 2). Mr. Parcell's additional model included the Comparable Earnings Model ("CEM"). Tr. p. 1000 (Parcell Dir., pp. 3-4). Mr. Rothschild included the Non-Constant DCF method as his third approach. Tr. p. 661 (Rothschild Dir., p. 5). Mr. Parcell utilized two additional Water Proxy Groups, for a total of three groups. Tr. p. 1000 (Parcell Dir., pp. 3-4). Mr. D'Ascendis also used a non-price regulated proxy group ("Non-Price Regulated Group") for application of his models (Tr. p. 541 (D'Ascendis Dir., p. 2-3)), which was heavily criticized by both Mr. Rothschild and Mr. Parcell.

The use of a Water Proxy Group by each witness was necessary because BGWC's common stock is not publicly traded, and therefore, the Company's market-based common equity rates cannot be determined directly. There was overlap in the companies included in each witness' Water Proxy Group. Mr. D'Ascendis' Water Proxy Group consisted of six companies, and Mr. Rothschild's adopted Mr. D'Ascendis' Water Proxy Group, with the exception of one company.

Mr. Parcell also adopted the companies in Mr. D'Ascendis' Water Proxy Group, with the exception of one of the companies. Ex. 17; Ex. 21; Ex. 28 (Sch. 4).

b. Witness D'Ascendis ROE Analysis

Initially, Mr. D'Ascendis recommended that the Commission authorize BGWC the opportunity to earn an overall ROR between 8.10% and 8.36%, and an ROE of 10.20% to 10.70%. Tr. p. 541 (D'Ascendis Dir., p. 2). However, he later amended his recommendation to an ROR between 7.86% and 8.12%, with a ROE of 9.75% to 10.25% in his Rebuttal Testimony "based on current market conditions as of January 17, 2020." Tr. p. 545 (D'Ascendis Reb., p. 3).

Mr. D'Ascendis arrived at his range of common equity cost rates by applying the Constant Growth DCF, RPM, and CAPM and ECAPM models to his Water Proxy Group and Non-Price Regulated Group and including an upward adjustment of .50% to ROE due to BGWC's small size. Tr. p. 542-545 (D'Ascendis Dir., pp. 3-4, 40-41. Sch. DWD-1, p. 2).

i. Water Proxy Group

Mr. D'Ascendis selected his Water Proxy Group according to these criteria: (i) they are included in the Water Utility Group of *Value Line's Standard or Small and Midcap Editions* (July 12, 2019); (ii) they have 70% or greater of 2018 total operating income and 70% or greater of 2018 total assets attributable to regulated water operations; (iii) at the time of the preparation of this testimony, they had not publicly announced that they were involved in any major merger or acquisition activity (*i.e.* one publicly traded utility merging with or acquiring another); (iv) they have not cut or omitted their common dividends during the five years ending 2018 or through the time of the preparation of this testimony; (v) they have *Value Line* and Bloomberg adjusted betas; (vi) they have a positive *Value Line* five-year dividends per share ("DPS") growth rate projection; and (vii) they have *Value Line*, Reuters, Zacks, or Yahoo! Finance consensus five-year earnings per share ("EPS") growth rate projections. Tr. 547.13 (D'Ascendis Dir., p. 11). The companies that met Mr. D'Ascendis' criteria were: American States Water Co., American Water Works Co., Inc., Artesian Resources, Inc., California Water Service Group, Middlesex Water Co., and York Water Co. *Id*.

ii. Non-Price Regulated Proxy Group

For his Non-Price Regulated Group, Mr. D'Ascendis included the following criteria: (i) they must be covered by *Value Line Investment Survey* (Standard Edition); (ii) they must be domestic, non-price regulated companies, *i.e.*, non-utilities; (iii) their beta coefficients must lie within plus or minus two standard deviations of the average unadjusted beta coefficient of the Utility Proxy Group; and (iv) the residual standard errors of the *Value Line* regressions, which gave rise to the unadjusted beta coefficients, must lie within plus or minus two standard deviations of the average residual standard error of the Utility Proxy Group. Tr. 547.35 (D'Ascendis Dir., p. 33). Mr. Rothschild criticized Mr. D'Ascendis' use of a non-price regulated proxy group, in part because the companies included by Mr. D'Ascendis "are exposed to tariff related expenses, emerging market economies[8] (e.g., Mexico, Brazil), risks related to recent acquisitions, among many other risks that BGWC is not exposed to." Tr. p. 672.54 (Rothschild Dir., p. 52). Mr. Rothschild also took issue with the selection methodology for the Non-Price Regulated Group used by Mr. D'Ascendis, including the lack of details on the methodology of his calculations and the wide range of betas Mr. D'Ascendis deemed "comparable" to his Water Proxy Group and BGWC. Tr. p. 672.55-672.56 (Rothschild Dir., pp. 53-54).

iii. D'Ascendis' Application of Models

[8] "For example, one of [Mr. D'Ascendis'] non-price regulated companies, AutoZone, explains in their annual report that their business may be materially adversely affected by the following: (1) political unrest in other countries…" Tr. p. (Rothschild Dir., p. 52).

Mr. D'Ascendis' DCF analysis yielded cost rates of 8.91% for his Water Proxy Group Ex. 17 (DWD-1R, p. 2). His RPM analysis produced a common equity cost rate of 10.21% for the Water Proxy Group, and his CAPM cost rate was 9.10% for the Water Proxy Group. *Id*. Mr. D'Ascendis then averaged the mean, 8.93%, and median, 8.88%, equity costs of his Water Proxy Group, resulting in 8.97%. Ex. 17 (DWD-1R, p. 2). For Mr. D'Ascendis' Non-Price Regulated Group, his DCF analysis yielded 12.64% cost rates, the RPM, 11.04%, and the CAPM, 10.17%. Ex. 17 (DWD-1R, p. 28). The average of the mean and median of the Non-Price Regulated Group was 11.16%. *Id*.

Mr. Rothschild is critical of Mr. D'Ascendis' constant growth DCF method because Mr. D'Ascendis uses a growth rate component based on five-year earnings per share growth rate forecasts. Tr. p. 663 (Rothschild Dir., pp. 27-29). Using analyst five-year earnings per share growth without attempting to reconcile the retention rate used for computing growth with the retention rate he used to compute the dividend yield is analogous to failing to reconcile a checking account withdrawal with the future balance of the account. Tr. p. 672.62 (Rothschild Dir., p. 60). A proper implementation of the constant growth DCF method requires a careful study of what future sustainable growth in cash flow is anticipated by investors. Tr. p. 672.61(Rothschild Dir., p. 59). Major financial institutions (e.g., J.P. Morgan Chase) implement the Constant Growth DCF method by using the sustainable growth form of the DCF method. Tr. p. 672.7 (Rothschild Dir., p. 5). Despite his critique that Mr. D'Ascendis' DCF method is fundamentally flawed, Mr. Rothschild acknowledged that Mr. D'Ascendis' growth rates are reasonable, but his 8.91% result is too high in this case. Tr. pp. 672.60-672.61 (Rothschild Dir., pp. 58-59).

c. Witness Parcell ROE Analysis

Mr. Parcell recommended an overall ROR of 7.41%-7.99%, with a midpoint of 7.70%. Tr. p.

1000_(Parcell Dir., p. 3). Mr. Parcell recommended a ROE range of 8.9%-10.0%, with a midpoint of 9.45%. Tr. p. 1000 (Parcell Dir., p. 4).

i. Water Proxy Groups

Mr. Parcell applied the DCF, CEM, and CAPM models to three Water Proxy Groups. The first was a group of water utilities covered by *Value Line* (Standard Edition) and included the following criteria: (1) primarily a regulated water utility in U.S.; (2) common equity ratio 40% or greater; (3) Value Line Safety of 2 or 3; (4) S&P's bond ratings of A or AA; (5) currently pays dividends, and has not reduced dividends in past five years; and (6) not currently involved in major merger. Tr. pp. 1004.19-1004.20 (Parcell Dir., pp. 19-20). The second group Mr. Parcell reviewed was the water utilities group cited by *Value Line* (in both the Standard and Small and Mid-Cap Editions). Mr. Parcell noted that the inclusion of Artesian Resources (from the Small and Mid-Cap Edition of Value Line) does not include the same degree of information as those companies in the Standard Edition. *Id*. The third group Mr. Parcell considered was the proxy group of water utilities employed by BGWC witness D'Ascendis in his analyses. The proxy group for Mr. D'Ascendis differs from the third proxy group of Mr. Parcell in that Mr. D'Ascendis' group includes Artesian Resources. Tr. pp. 1004.19-1004.20 (Parcell Dir., pp. 19-20). Mr. Parcell excluded Artesian Resources from his third Water Proxy Group because the degree of information for this company, pulled from the Small and Mid-Cap Edition of Value Line, does not include the same degree of information as those companies in the Standard Edition. Tr. p. 1004.20 (Parcell Dir., p. 20).

ii. Witness Parcell's Application of Equity Models

In his DCF model, Mr. Parcell combined the current dividend yield for each of the proxy utility stocks with several indicators of expected dividend growth. Tr. p. 1004.22 (Parcell Dir., p. 22). To calculate ROE using his DCF model, Mr. Parcell noted that the value of a share of stock is the discounted present worth of all the dividends to be received on that share. His equation, when reduced, is P = D/(K – g), where P = current price, D = current dividend rate, K = the discount rate (cost of capital), and g = constant rate of expected growth. Tr. p. 1004.21 (Parcell Dir., p. 21). Mr. Parcell's recommended ROE falls above the mean and median DCF rates in his range. Tr. p. 1004.25 (Parcell Dir., p. 25). In response to Mr. D'Ascendis' assertion that he relied too heavily on DCF results, Mr. Parcell noted that Mr. D'Ascendis' DCF model approach was essentially an attempt to "reprice" stock values. Tr. p. 1005.3 (Parcell Surr., p. 3).

In his CAPM model, Mr. Parcell notes that Mr. D'Ascendis uses interest rate projections as a risk-free rate, whereas he (Parcell) relies on current interest rates. Tr. p. 1002 (Parcell Dir., pp. 40-42). Mr. Parcell also discusses his concern with the use of forward-looking interest rates in bond yields in a cost of capital analysis- highlighting that are estimates which are not known and measurable. *Id*.

d. Witness Rothschild ROE Analysis

Mr. Rothschild has not previously testified before this Commission-[9] he recommended an overall cost of capital (or ROR) of 7.27% be used to calculate BGWC's revenue requirement and ultimately its customer rates. Tr. pp. 660-661 (Rothschild Dir., p. 5). He recommended a cost of equity/ROE of 8.65%. *Id*. To arrive at his recommendations, Mr. Rothschild applied the following three models to his Water Proxy Group: (1) Constant Growth DCF, (2) Non-Constant Growth DCF, and (3) CAPM. *Id*.

i. Water Proxy Group

Mr. Rothschild included the following six companies in his Water Proxy Group: (1)

[9] Mr. Rothschild has testified in more than 50 cost of capital proceedings before other state utility regulatory commissions. Tr. p. 672.4 (Rothschild Dir., p. 2).

American States Water, (2) American Water Works, (3) Aqua America, (4) California Water Service Group, (5) Middlesex Water Company, and (6) York Water. Ex. 21 (Rothschild Dir., p. 24).

ii. Witness Rothschild's Application of Models

To calculate ROE using the Constant Growth DCF, Mr. Rothschild used the constant growth model equation of k=D/P + g, where, k= cost of equity, D=Dividend, P=Market price of stock at time of the analysis, and where g=the growth rate (where g=br + sv).[10] Tr. p. 672.28 (Rothschild Dir., p. 26). Mr. Rothschild noted that using an earnings per share ("EPS") growth rate in the constant growth form of the DCF model will therefore result in an overstatement of the cost of equity whenever the earnings per share growth rate that has been modeled is derived along with an expectation of a lower dividend growth rate. Tr. pp. 672.29-672.30 (Rothschild Dir., p.28).

To calculate the ROE using the non-constant growth DCF, he incorporated Value Line's detailed annual forecasts to arrive at the specific non-constant growth expectations that an investor who trusts Value Line would expect. Tr. 672.36 (Rothschild Dir., pp. 34-35) In the first stage cash flow entry is the cash outflow an investor would experience when buying a share of stock at the market price. *Id*. The subsequent years of cash flow are equal to the dividends per share that Value Line forecasts. The stock price used to determine the proceeds from selling the stock was obtained by estimating that the stock price would grow at the same rate at which Value Line forecasts book value to grow. *Id*.

In his CAPM approach, Mr. Rothschild noted that a firm's equity investors face two types of risks: (1) firm-specific risk and (2) market risk (sometimes referred to as systematic risk). Tr.

[10] b= the earning retention rate, r= the return on common equity investment (sometimes referred to as "book equity"), v= the fraction of funds raised by the sale of stock that increases the book value of the existing shareholders' common equity, and s= the rate of continuous new stock financing. The constant growth model is therefore correctly recognized to be: k=D/P + (br + sv).

p. 672.41 (Rothschild Dir., p. 39). Firm-specific risks are those risks unique to a firm such as management performance and losing market share to a new competitor. Firm-specific risks can be reduced through appropriate diversification. Market-related risk refers to potential impacts from the overall market such as a recession or interest rate changes. Diversification will not remove this type of risk, so the investor must accept it. Because market-related risk cannot be avoided, the investor's cost of equity will reflect that risk. *Id*.

To implement the CAPM, Mr. Rothschild determined appropriate values or ranges for each of the three model inputs: (a) Risk Free Rate, (b) Beta, and (c) Equity Risk Premium. Mr. Rothschild then used the CAPM formula, K = Rf + βí * (Rm – Rf),[11] to calculate the cost of equity implied by the model. Tr. pp. 672.42-672.43 (Rothschild Dir., pp. 40-41). In determining Beta, Mr. Rothschild used both historical and forward (option-implied) betas in his CAPM analysis. Tr. pp. 672.44-672.45 (Rothschild Dir., pp. 42-43). In determining equity risk-premium, he calculated investors' expected return on the S&P 500 by using stock options traded on this index. Based on stock option data, he determined that the market expects less than a 32% chance of S&P growth greater than 8.74%. This growth rate results in a 9.00% risk premium over 3-month Treasury Bill yields and 8.16% over 30-Year U.S Treasury Yields. Tr. pp. 672.50-672.51 (Rothschild Dir., pp. 48-49).

In response to Mr. D'Ascendis' assertion that projected interest rates should be used as the risk-free rate in a CAPM context (Tr. p. 548.50 (D'Ascendis Reb., p. 49)), Mr. Rothschild and Mr. Parcell noted that the use of projected rates, such as those from Blue Chip Financial Forecasts, frequently leads to an overstatement of 30-Year U.S. Treasury bond yields, and the yields on such

[11] K is the cost of equity; Rf is the risk-free interest rate; Rm is the expected return on the overall market; [Rm – Rf] is the premium investors expect to earn above the risk-free rate for investing in the overall market; and βí (Beta) is a measure of non-diversifiable, or systematic, risk.

bonds are market-based and therefore reflect investors' expectations. Tr. p. 1005.5 (Parcell Surr., p. 5); 683.23 (Rothschild Surr., p. 21).

e. Discussion of ROE Analyses

In his Direct Testimony, his Rebuttal, and his testimony during the merits hearing, Mr. D'Ascendis was not transparent regarding the data or methodology he used for applying criteria iii and iv to his Non-Price Regulated Group. He stated he purchased proprietary data from Value Line in the form of "hard-coded," "raw numbers" without "the data behind it" and which is "not included in the subscription to Value Line". Tr. p. 567. Even assuming this is the case, Mr. D'Ascendis erroneously mixed the statistical concepts of simple data distribution and sampling errors. When asked, he was unable to clarify whether the Standard Deviation of Beta in his schedule corresponded to the Standard Deviation of historical returns provided by Value Line. Tr. p. 571. He stated that this Standard Deviation does not refer to the standard deviation of the unadjusted betas of the entire proxy group (Tr. p.571), yet his description and application to the average beta of the proxy group imply he used it as such. For example, he stated "two standard deviations cover 95.5 percent of the population" but also stated "if two standard deviations only came up with three companies and three standard deviations came up with eight companies, I would use three standard deviations." Tr. p. 572-573. When asked about the entire population he was referring to, he stated "the entire population in the database is over 6,000 stocks" (Tr. p.573-574), yet in his parallel formula for the Standard Deviation of the Standard Error of the Regression he used N=259 as the number of observations, a concept related to sampling error in the calculation of the beta coefficient for each company, implying a larger relevant "population" of observations, which simply did not exist. Ex. No. 17, p.25 (D'Ascendis Reb., Sch. DWD-1R, p. 25).

While the concept of attempting to find companies with comparable overall risk by finding companies with similar beta coefficients and residual standard errors is not completely unreasonable, the process used by Mr. D'Ascendis in this case lacks analytical transparency and statistical coherence. This is further supported by the fact that Mr. D'Ascendis' resulting Non-Price Regulated Group indicated an average unadjusted beta that is 25 percent higher than his Water Proxy Group (Tr. p. 575), making it inappropriate for comparison purposes regarding the most fundamental measurement of risk.

We find the methodology and analysis performed by SCDCA witness Rothschild, which clearly and appropriately applied three different equity models to his Water Proxy Group, to be more thorough and compelling in this case. Mr. Rothschild fully rebutted Mr. D'Ascendis' testimony,[12] offering a more comprehensive and transparent application of his Constant Growth DCF, Non-Constant Growth DCF, and CAPM models to his proxy group. Further, the thorough critique presented by Mr. Rothschild regarding the use of the non-price regulated proxy group is persuasive. The evidence in this proceeding clearly shows that the non-price regulated proxy group used by Mr. D'Ascendis is not comparable to the risk faced by BGWC.[13]

Amongst the three witnesses, Mr. Rothschild's approach was unique in that he included the use of both historical and forward-looking, market-based data in his analysis. Based on the testimony and facts presented, the Commission therefore adopts the recommended ROR of 7.27% and ROE of 8.65% proposed by Mr. Rothschild. This ROE allows BGWC to raise the capital it needs to provide safe and reliable service to its' customers.

E. Adjustments to Rate Base and Operating Income

[12] For example, Mr. Rothschild addressed Mr. D'Ascendis' criticisms regarding his use of current market data to determine cost of capital by pointing out that Mr. D'Ascendis relies on non-market based data (Blue Chip consensus interest rate forecasts) (Transcript, p. 581, line 25 and p.582, lines 1-6) in his analysis.

[13] As stated previously, Mr. D'Ascendis' Non-Price Regulated Group indicated an average unadjusted beta that is 25% higher than his Water Proxy Group (Tr. p. 575), making it inappropriate for comparison purposes regarding the most fundamental measurement of risk.

1. Deferred Maintenance

BGWC has included the balances of maintenance work related to wastewater treatment plant tank recoating and various hydro tank inspections which it has classified as deferred maintenance balances. The Company proposes an adjustment in the amount of $212,327 over a five (5) year period. The Company contends these maintenance costs are similar to tank painting, are significant, and do not recur on an annual basis. The tank inspections are performed every five years and tank painting occurs approximately every 20 years. The Company contends the activities are analogous to a traditional capital investment. TR. p. 764.27 (DeStefano Reb., p. 27)

SCDCA witness Morgan finds these costs should be completely removed from rate base because they are routine maintenance expenses, rather than capital expenditures. Morgan recommends an adjustment to reduce operating expenses by $73,000 to remove these costs from the revenue requirement determination. Tr. p. 651.12 (Morgan Dir., p. 12). We find these costs were not incurred during the test year. Further, the infrequent nature of these activities does not justify including the costs in rate base.

2. Post Test Year Land Purchase

BGWC proposed an adjustment to reflect a post-test year purchase of land on which to build a one million-gallon elevated tank in the Lake Wylie subdivision. The Company indicates that the purchase of the land will occur prior to construction. The Company's Application exhibit shows the inclusion of $350,000 for the land[14]; however, Mr. DeStefano states in his testimony that the land purchase will not occur during the pendency of this proceeding and therefore, the Company proposes to remove this item from the filing. Tr. p. 763.14 (DeStefano Dir., p. 14).

SCDCA witness Morgan made an adjustment to remove the cost of the land from rate base

[14] See Hearing Exhibit 22, p49 of 175 (DeStefano Direct Exhibit No. 1, schedule C - Service Territory 1 and Service Territory 2, Page 2 of 7).

because the land has not yet been purchased; therefore, the amount included in rate base is not known and certain. Additionally, the cost of the land is part of the storage tank project. Until the project is complete, the land is not considered used and useful. Instead, the land is part of Construction Work in Progress (CWIP). Normally, for ratemaking purposes, CWIP is not eligible for inclusion in rates. Therefore, the $350,000 included for cost of the land will be removed.

3. Deferred Tax Liability

The Tax Cuts and Jobs Act (TCJA) lowered the federal corporate income tax rate from 35% to 21%. BGWC proposes to initiate a one-time credit of $10.64 to each customer water and sewer service account in order to return overcollections of federal income tax expenses accumulated between January 1, 2018 to June 28, 2018 related to the TCJA in the amount $335,713. Tr. p. 763.10 (DeStefano Dir., p.10).

As discussed further below, the Company is seeking recovery of $2,803,968 of purchased water and wastewater costs that have been previously deferred. Tr. 763.9 (DeStefano Dir., p. 9). SCDCA witness Morgan recommends that the deferred liability of $335,713 be used to offset the deferred purchased water and wastewater treatment costs instead of providing a direct refund to customers. Tr. p. 651.15.

We concur with Morgan's recommendation. Instead of providing a one-time credit, reducing the deferred costs with the TCJA overcollection provides a more long-term benefit to customers through lower rates.

F. Authorized Revenues

As noted previously, BGWC has requested an increase in revenues for combined water and sewer operations of $11,731,803, consisting of water revenue increases for Service Territory 1 of $3,636,850 and for Service Territory 2 of $1,939,107. These represent increases of 53.5% and

34.9%, respectively. BGWC requested a sewer revenue increase of $6,155,846 (55.7% increase).

SCDCA witness Morgan presented evidence that the Company has a revenue deficiency of $6,979,049 for the test year, which is $4,752,754 less than BGWC's requested increase. Tr. 651.10 (Morgan Dir., p 10. Also see Hearing Exhibit 20). ORS calculated a deficiency of $8,477,561. Tr. pp. 1214.10-1214.11 (Sandonato Surr. pp.10-11. Also see Hearing Exhibit 42). The Commission will authorize revenues in an amount which generates an overall rate of return of 7.27% (as recommended by SCDCA witness Rothschild) after accounting for the adjustments to BGWC's claimed rate base and operating income discussed herein.

G. Purchase Water and Wastewater Service Rate Mechanisms

BGWC recovers its purchased water and wastewater services expenses in base rates. However, the Company defers any increases to purchased water and wastewater treatment costs due to third-party provider rate increases. When a third-party provider increases rates charged to the Company, the Company records the change in cost in a regulatory asset where it is held until it is reflected in base rates.

In this proceeding, the Company is seeking recovery of $2,803,968 of purchased water and wastewater costs that have been previously deferred. BGWC is also seeking Commission approval of two rate adjustment mechanisms. One would allow annual adjustments to the Company's Distribution Only water rates and the other would allow adjustments to its Collection Only sewer rates. Under the Company's proposal, it will make an annual filing to adjust rates to pass-through the cost changes to customers. The Company also proposes an adjustment to regulatory commission expense to include annual legal expenses associated with these annual rate adjustment mechanisms.

ORS opposes the rate adjustment mechanism generally and therefore, also opposes inclusion of the legal expenses associated with the annual filing. ORS noted the annual rate adjustment is a fundamental change to the Company's rate design. ORS witness Sandonato testified that, until the Company completes a Cost of Service Study, it cannot support a new rate design for water or sewer customers. ORS recommends the Commission require the Company conduct a Cost of Service Study prior to fundamentally changing its rate structure. Tr. p. 1214.7 (Sandonato Surr., p. 7). ORS believes that the company should retain its existing rate structure of a base facility charge, a commodity charge based on water consumption for water customers, and a per single family equivalent charge for sewer customers until the company completes a cost of service study. *Id.*

SCDCA witness Morgan finds the inclusion of any costs relating to a pass-through proceeding is premature because it is not certain there will be any annual rate filings due to increases in third party charges. He also believes that the cost of the pass-through proceeding should be recovered as part of the rates established in that proceeding, rather than being part of base rates, which would prevent the Company from recovering costs before they are incurred. Tr. p. 648.

We accept the recommendation of ORS which also supports SCDCA's recommendation for a CCOSS. As noted previously, a CCOSS provides the best roadmap for setting appropriate base and volumetric charges by incorporating cost allocations between service territories and water and sewer on a more detailed level and supporting further adjustments to rate structure and revenue requirement consolidation. Therefore, we deny the rate adjustments at this time and again direct the Company to file a CCOSS in its next rate proceeding to support its proposal.[15]

[15] The $2,803,968 deferral must be reduced by $335,713 to account for the overcollections resulting from the TCJA.

While we defer the consideration of the annual rate mechanism until a CCOSS is completed, there was much testimony in this proceeding regarding "lost" or "non-revenue" water, which cannot be ignored. BGWC data indicates up to 53% of purchased water (subdivision dependent) is not actually delivered to BGWC customers. Tr. pp.363.7-363.8 (Mendenhall Reb., pp. 7-8). More than half of the Company's subdivisions that purchase water from a third-party provider realized more than 10% non-revenue water. Tr. p. 1202.4 (Maurer Surr., p. 4). Whether this loss is through leaks in the system, flushing of lines, or meter failures, the Company must address the issue. To allow full recovery of all purchased water expenses when a large percentage is unaccounted for is unfair to the customers.

Similarly, testimony indicated there are significant issues with inflow and infiltration ("I & I") in the Company's sewer systems. I & I refers to the introduction of groundwater and/or stormwater into a sewer system. In other words, it is water in the system that is not a result of the customer's activities. To allow the Company to recover treatment charges for this additional water, which is not produced by its customers, is also unfair. Therefore, we recommend BGWC begin assessing the causes of its non-revenue water and I & I to present to the Commission in its next proceeding.

ORS suggested the Company begin to perform audits using AWWA software on each of its systems to assess lost water and I & I issues. ORS witness Maurer testified that the Company previously provided Water Accountability Reports, but the non-revenue water data was incomplete and did not provide insight into the individual components of non-revenue water within a given subdivision that are contributing to non-revenue water. Tr. pp.1284-1285. Therefore, ORS believes 10% system wide thresholds are appropriate at this time. Tr. 1201.5 (Maurer Dir., p. 5). We agree. If and when the Company presents subdivision specific data that justifies additional thresholds, it may present it to the Commission during future proceedings.

H. Storm Reserve Fund

The Company proposes to establish a Storm Reserve Fund of $200,000 which would be funded through a monthly surcharge of $0.53 per customer. The fund is proposed for extraordinary storm restoration costs beyond those included in the Company's revenue requirement. BGWC explains that the $200,000 amount that it seeks to accumulate in the Storm Reserve Fund is based upon the level of expenses ($208,713) incurred for Hurricane Florence and Hurricane Michael in September/October 2018. Tr. pp. 763.21-763.22 (DeStefano Dir., pp. 21-22).

However, SCDCA witness Morgan finds this is an unreasonable amount because it is based on a one-time and unusual experience (i.e., the two hurricanes were back to back in a short span of time). Moreover, Morgan notes, per Mr. DeStefano's rebuttal testimony, during the previous 10-year period presented, the normal annual storm damage expense is significantly less than $200,000. Tr. 658.5 (Morgan Surr., p 5)

According to the Company's own data, there have been only two instances in the past 4 years where the Company incurred storm damage expenses that were significant enough to receive authority to defer the expenses. The Company was allowed to defer approximately $60,000 for a storm in 2016 which is being amortized over a 5-year period. The other storm deferral, which the current proposed fund is based upon, was the combination of the two 2018 storms in which the Company incurred approximately $209,000 in storm restoration costs. The Company is also being allowed to recover those costs over a 5-year period. Tr. p. 658.5 (Morgan Surr., p. 5). Further, in the last 10 years, after removing the expenses in the highest and lowest years, ORS found the average yearly storm costs to be $28,320.51. Tr. 1190.15 (Bickley Dir., p. 15). The Company used the most recent 5 years of data and found the average to be $42,493.62. Tr. p. 764.22 (DeStefano Reb., p. 22)

The Company's response to ORS' Energy Operations Request 5, number 29 indicated few, if any, of BGWC's customers have gone without reliable water and sewer service due to storm damage. Tr. p. 658.6 (Morgan Surr., p. 6). In response, Company witness DeStefano stated the Company has occasionally experienced service disruptions and boil water advisories due to temporary power loss. He then indicated that it can take up to several days to restore full service to customers depending on the nature of the damage sustained. Tr. p. 764.23 (DeStefano Reb., p. 23). In response, SCDCA witness Morgan noted the Company has not claimed that these service disruptions are due to the lack of funds to restore service, nor has the Company provided any evidence that shows that the lack of funds for emergency repairs has caused service disruptions to be longer than necessary. Tr. p. 658.6 (Morgan Surr., p. 6).

We find ORS witness Bickley's testimony compelling and agree with SCDCA witness Morgan that it is unreasonable to make a significant policy change based upon a rare occurrence. The current process whereby the Company can seek deferred accounting treatment works well for unusual occurrences. There is no need to burden ratepayers with higher rates to create a fund that history shows will likely end up unused on the Company's balance sheet; therefore, we conclude the Storm Reserve Fund is not needed at this time.

I. Round Up Program

BGWC is seeking authority to implement a Voluntary Round Up program, which would round participating customer bills to the nearest higher dollar, with the difference being accumulated in a reserve fund for remittance to the South Carolina Office for Economic

Opportunity. The funds would be: 1) distributed to Community Action Agencies in the Company's service territory to assist low income customers with their water and sewer bills; 2) issued in an amount not to exceed fifty dollars ($50), per qualifying household, for the payment of outstanding water or sewer services charges, or a deposit on a residential customer account; and 3) provided as a one-time service for eligible residential customers during the Program Year. The Company also sought approval to defer implementation costs (e.g., modifying the billing system, customer service applications, notifications, etc.) for the Round Up program related to modifications of its billing system and its customer service application, for recovery in the Company's next base rate case. Tr. pp. 1190.9-1190.10 (Bickley Dir. pp. 9-10).

The SCDCA and ORS support the program, but indicated concerns with customers shouldering the cost of implementation. ORS notes neither the Company, nor its affiliates, currently have a similar round up program. ORS is also not aware of any water or sewer utilities in the state that utilize such a program. Tr. pp. 1190.11 (Bickley Dir., p. 11). ORS identified two electric utilities in the state that have similar programs, finding the shareholders of those utilities pay for the program costs. Tr. pp. 1190.12 (Bickley Dir., p. 12).

While we appreciate the effort to assist customers in need, the Commission finds customers should not have to pay the administrative costs of the assistance program. The program could provide some level of financial aid to low income customers; however, the Company provided no evidence indicating how many of its customers would benefit from such a program. The Company also did not provide any evidence supporting its estimated administrative costs for the program; therefore, the costs are not known and measurable. Finally, the program would not impact the Company's ability to provide safe and reliable service; therefore, we find the Company should pay for the program costs.

J. Customer Communications

As noted previously, BGWC's last rate case before this Commission was in Docket No. 2017-292-WS. In that Order (2018-345(A)), we noted CWS, now BGWC, had hired a communications coordinator to direct its customer outreach activities and had scheduled several meetings with its customers, giving them the opportunity to meet with its management and field personnel to learn more about its operations and cost of service.

This Commission also noted that, in prior years, the Company's customer service was perceived by some as being below standard. While the Company's testimony in the prior case showed a commitment to improvement, in this proceeding, more than 500 customers attended the public night hearings and more than 200 customers submitted letters of protest. A majority of these individuals expressed concerns with not only the proposed rate increases, but also quality of service, response times, and billing issues.

During the merits hearing, Forty Love HOA presented testimony from witness Radke, who testified that he and his neighbors have participated in past rate cases as a means to have their water quality improved. Tr. 732.3 (Radke Dir. p. 3). Forty Love HOA witness King testified to sewage backup problems in the neighborhood that occurred over the course of five years due to rainfall. She also felt that participating in past cases before this Commission was the only reason their problems were resolved. Tr. pp. 735-736. Additionally, Mr. Knowlton, who has also participated in previous cases before this Commission, complained of rude, uncaring employees of the Company. Tr. 1088.1 (Knowlton Dir. p. 2). Mr. Dover noted the Company is requesting its third rate increase in five years and his neighborhood has not experienced an increase in quality from the Company. Tr. p. 1101.2 (Dover Dir. p. 3)

To address similar issues, in the prior case, we ordered BGWC[16] to prepare a report and submit it to the Commission and to ORS no less than semiannually, documenting its customers concerns with quality of service and BGWC's attempts to address them. (Order 2018-345(A) at p. 32). As the testimony of its customers demonstrates, these complaints are still prevalent; therefore, BGWC must continue to prepare the report. As noted, it in the previous order, the document should have headings for "Customer Complaint," "Company Response," "Customer Reaction to Company," and explain the Company reaction to Customer Complaints during the period addressed, along with any explanations regarding quality of service.

Further, recognizing the importance consumer complaints play in a company being able to provide reliable customer service and identifying compliance issues, the Company shall provide the Commission with its Complaint Management System procedures and guidelines. Such documents should include, but not be limited to, the formal definition of direct consumer complaints, the process for handling complaints, a description of related training for employees, the method utilized for monitoring and tracking complaints, and the process for implementing appropriate corrective action.

IV. FINDINGS OF FACT and CONCLUSIONS OF LAW

Based on the record established in this proceeding, including the information and testimony of the parties discussed herein, the Commission makes the following findings of fact and conclusions of law:

a. BGWC is a public utility as defined in S.C. Code § 58-5-10(3). It provides water and sewer service in its assigned service areas in South Carolina. The Commission is vested

[16] During the prior case, BGWC still operated under its former name, CWS.

with authority to regulate rates of every public utility in this state and to ascertain and fix just and reasonable rates for service. S.C. §58-5-210, et. seq. BGWC's operations in South Carolina are subject to the jurisdiction of the Commission.

b. BGWC requested in its Application to increase revenues for combined water and sewer operations of $11,731,803. The Company did not perform a CCOSS in order to justify these proposed increases.

c. In its Application, BGWC utilized the twelve months beginning July 1, 2018 and ending June 30, 2019. ORS and DCA used the same historical test year. No other party disputed the proposed test year. Therefore, the Commission concludes that the test year beginning July 1, 2018 and ending June 30, 2019 is appropriate.

d. The Commission will use the return on rate base methodology in determining and fixing just and reasonable rates.

e. The return on rate base methodology requires three components: capital structure, cost of debt, and cost of equity (or ROE).

f. The Commission adopts and approves of a capital structure of 47.09% long-term debt at an embedded debt cost rate of 5.73% and 52.91% common equity; and an ROE of 8.65%.

g. The Commission will authorize revenues in an amount which generates an overall rate of return of 7.27% after accounting for the adjustments to BGWC's claimed rate base and operating income discussed herein. The approved revenues and expenses establish a fair and reasonable operating margin of 14.23%.

h. This Commission supports the adoption of cost-based rates. It is appropriate to begin the movement towards cost-based rates in this proceeding. Movement toward a cost-based base facility/monthly customer charge would in turn lead to cost-based volumetric charges.

i. An adjustment to reduce operating expenses by $73,000 to remove maintenance costs from the revenue requirement determination is appropriate.

j. An adjustment to remove a $350,000 post-test year purchase of land on which to build a one million-gallon elevated tank is appropriate.

k. Reducing the $2,803,968 of deferred purchased water and wastewater costs deferred costs with the TCJA overcollection provides a benefit to customers through lower rates.

l. The Storm Reserve Fund is not needed at this time. The current process whereby the Company can seek deferred accounting treatment works well for unusual occurrences.

m. The Company should pay for any Voluntary Round Up program implementation costs.

n. The Company's current base facility/monthly customer charges are adequate.

o. In order for the Commission to set new base facility/customer monthly charges equitably between its customers, the Commission finds and directs that BGWC conduct a CCOSS prior to filing its next rate case.

V. <u>ORDERING PROVISIONS</u>

IT IS THEREFORE ORDERED THAT:

I. We deny the Base Facility Charge adjustments at this time and direct the Company to file a CCOSS in its next rate proceeding to support its proposal.

II. The Company begin assessing the causes of its non-revenue water and I & I to present to the Commission in its next proceeding by performing audits using AWWA software on each of its systems.

III. The rates, fees, and charges included in this Order are both fair and reasonable and will allow the Company to continue to provide its customers with adequate water and wastewater services.

IV. A ROE of 8.65%, return on rate base of 7.27% and operating margin of 14.23% based on the new rates, fees, and charges, is approved for BGWC.

V. The Company shall prepare a report and submit it to the Commission and to ORS no less than semiannually, documenting its customers concerns with quality of service and BGWC's attempts to address them. The document should have headings for "Customer Complaint," "Company Response," "Customer Reaction to Company," and explain the Company reaction to Customer Complaints during the period addressed, along with any explanations regarding quality of service.

VI. The Company shall provide the Commission with its Complaint Management System procedures and guidelines. Such documents should include, but not be limited to, the formal definition of direct consumer complaints, the process for handling complaints, a description of related training for employees, the method utilized for monitoring and tracking complaints, and the process for implementing appropriate corrective action.

VII. This Order will remain in full force and effect until further order of the Commission.